SCIENTIFIC AMERICAN.

THE ADVOCATE OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME I. NEW-YORK, THURSDAY, OCTOBER 9, 1845. NUMBER 7.

THE
SCIENTIFIC AMERICAN,
PUBLISHED EVERY THURSDAY MORNING, AT NO. 11 SPRUCE STREET, NEW YORK, NO. 12 STATE STREET, BOSTON, AND NO. 21 ARCADE, PHILADELPHIA,
(THE PRINCIPAL OFFICE BEING IN NEW YORK,)

By RUFUS PORTER.

Each number will be furnished with from two to five original engravings, many of them elegant, and illustrative of *New Inventions*, *Scientific Principles*, and *Curious Works;* and will contain, in addition to the most interesting news of passing events, general notices of the progress of Mechanical and other *Scientific Improvements;* American and Foreign Improvements and Inventions; Catalogues of American Patents; Scientific Essays, illustrative of the principles of the sciences of Mechanics, Chemistry and Architecture; useful information and instruction in various Arts and Trades; Curious Philosophical Experiments; Miscellaneous Intelligence, Music and Poetry.

This paper is especially entitled to the patronage of Mechanics and Manufacturers, being the only paper in America devoted to the interests of those classes; but is particularly useful to farmers, as it will not only apprise them of improvements in agricultural implements, but instruct them in various mechanical trades, and guard them against impositions. As a family newspaper, it will convey more useful intelligence to children and young people, than five times its cost in school instruction. Another important argument in favour of this paper, is, that it will be worth two dollars at the end of the year when the volume is complete, and will probably command that price in cash, if we may judge from the circumstance that old volumes of the New York Mechanic, by the same editor, will now command double the original cost.

TERMS.—The "Scientific American" will be furnished to subscribers at $2,00 per annum,—one dollar in advance, and the balance in six months.

Five copies will be sent to one address six months, for four dollars in advance.

Any person procuring two or more subscribers, will be entitled to a commission of 25 cents each.

Lost Time never regained.

[WRITTEN ON HEARING A PERSON REMARK THAT HE INTENDED "TO KETCH UP LOST TIME WITH A WET SAIL."]

When sailors, heedless of their duty, sleep,
Neglecting every favorable gale,
They'll find it hard their after-course to keep,
With a wet sail.

There is a tide in the affairs of men,
Which all should watch with carefulness to hail;
Once miss'd, it scarcely can be caught again,
With a wet sail.

And yet who wishes cautiously to live,
Fixing no hopes on phantoms which may fail,
Will not a chase to every object give
With a wet sail.

The swiftest do not always first arrive,
In war the strongest do not aye prevail;
Then keep the golden mean, nor ceaseless drive
With a wet sail.

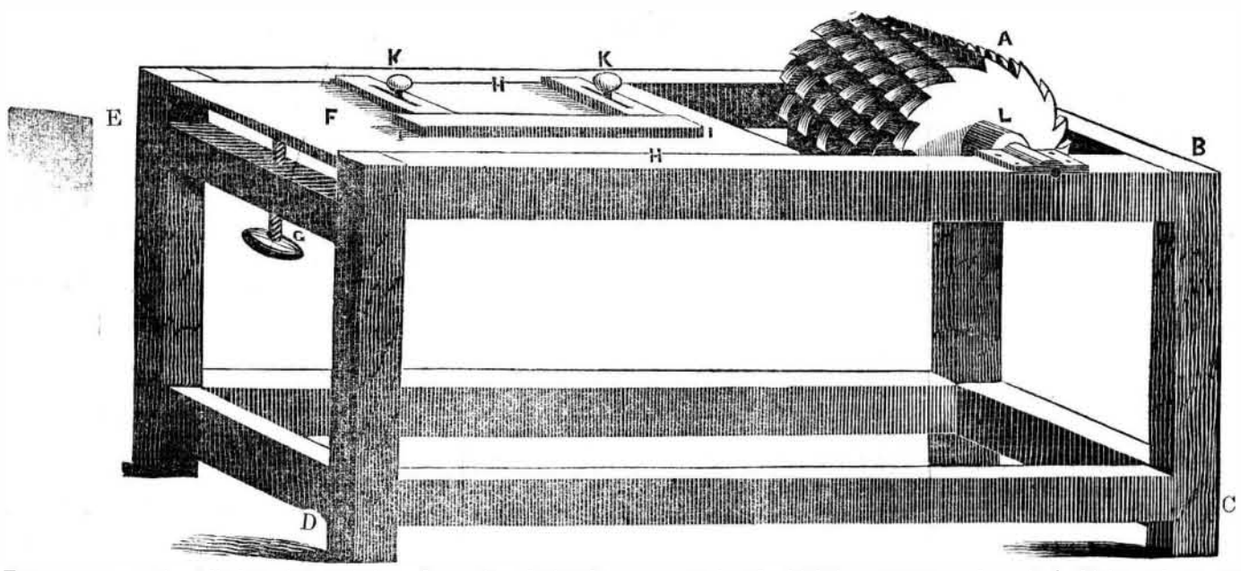
Think not to eagerness alone is given
The happy mind which nothing can assail;
He's on the wrong track who would enter heaven
With a wet sail.

Quaint Poetry.

[It is amusing to observe how obscure the sense, even of poetry, may be rendered, without removing a word or letter from its place. The following verses are from an old paper, and purport to be an epitaph. If our juvenile readers should not succeed in rendering it "plain English," we will assist them in our next.]

A NE PIT A PHO NAW .O! MAN who's
O—LD ear the N. Wa, R.E.
BENE
AT. HT HISST. O. NELIES' KA,
TH' Arin, eg, Rayc, hang'd F,
RO! mabus—y L I, Feto Li felessc
Lay Bya aR—T. Hand, c lay s. H
Ego T. herself AND No WS he
'St, Uni'd , lth Eis
Elfy G. fri
sfet Mead.
VI.
Seab, AT MEyo, U. R. G. RIE,
FAndd Ryy ou Rey EsF, or
Wha? Ta Vail—— sa,
Flo O? Doft EarS
WhokNow S. BU, Tinar Un O: fye
Arsi n, s ometall PiT
Chero RB. ro A, D Pansheinh ER sh, O
Pma yb eag———a I N?

BROWNS DOVETAILING MACHINE.



EXPLANATION.—A cylinder, A, consisting of a series of circular saws, each of which is a quarter of an inch thick, and mounted on a shaft or mandrill, with an intervening plate of equal thickness, between each two saws. The saws are fastened by means of a shoulder and screw nut, of ordinary construction. The teeth of the saws are arranged spirally, so that no more than one tooth will encounter the wood at the same instant. The mandrill, or axle, of this cylinder, is mounted on a strong frame, B, C, D, E, and has a pulley, L, at one end of the cylinder to receive a belt, whereby the cylinder is put in motion. A platform, F, consists of plank, and hangs on two side pivots at H H, and its position is governed by the screw G. This screw is connected to the platform by means of an iron plate which is attached to the under side of the platform by wood screws. The upper end of the adjusting screw terminates in a round tenon, which passes through the centre of the plate, and having a rivet head attached, is prevented from withdrawing; and as the thread of the screw takes to the cross-beam, through which it passes, the platform is held firmly in its position. A moveable guide, I I, is attached to the platform by two thumb-screws, K K. When in operation, the plank or board which is to be wrought, is placed on this platform and pressed against the guide, while it is moved endwise toward the cylinder, until each saw cuts a slot of the required depth therein. The ends of several boards being thus prepared, the ends are locked together in a manner similar to ordinary dove-tail work; and this work is suitable for chests, trunks, or packing boxes. This machine is now in operation at the shop of the inventor, in Ann street, and proves itself to be one of the most perfect labor saving inventions of modern times. Mr. Brown has taken measures for securing a patent, and will be ready to furnish the Machines, or rights therein, to those who may require them, in a few days.

EXTENSIVE RELATIONSHIP.—During the course of the trial of Dr. Boughton, now going on, it became necessary, says the Hudson Republican, for Judge Edmonds to remark upon the degrees of relationship with the parties to a suit, by which persons were disqualified from serving as jurors. The exemption extended, his Honor stated, to the ninth degree of consanguinity, or as far as third cousins. In speaking upon this subject, he said that when appointed to the office of Recorder of that city some years since, knowing from the fact that his ancestors were among the first settlers of the place, that he had an extensive relationship there, though in many cases very distant, he requested his mother to give him the names of all the persons she knew in the city, who came within the degree of third cousins, whose cases it would be improper for him to try, if they should ever come before him. Extraordinary as it may seem, she gave him the names of 2,300! This, in a population of 5,500, is what we should call a pretty extensive relationship.

ADVICE TO APPRENTICES.—Having selected your profession, resolve not to abandon it; but by a life of industry and enterprise, to adorn it. You will be much more likely to succeed in business you have long studied than that of which you know but little.

2. Select the best company in your power to go out in; and let your conversation be on those things you wish to learn. Frequent conversation will elicit much instruction.

3. Obtain a friend to select for you the best books on morality, religion, and liberal arts, and particularly those which treat on your own profession. It is not the reading of many books that makes a man wise, but the reading of only those which can impart wisdom. Thoroughly understand what you read, take notes of all that is worth remembering, and frequently review what you have written.

4. Select for your model the purest and greatest characters; and always endeavor to imitate their virtues, and to emulate their greatness.

5. Serve God; attend his worship; and endeavor to set an example of piety, charity, and sobriety to all around you.

6. Love your country; treat with kindness your fellow apprentices; let your aim be usefulness to mankind.

VALUE OF A TEMPERANCE PAPER.—In a certain town in Connecticut, where the Youth's Temperance Advocate had been taken in the Sunday School, its discontinuance was advocated on account of expense. A poor woman said it must not be given up; and should not be, if she paid the ten dollars herself, and earned the money by washing; for, said she, I had rather do that than have the little paper discontinued, and my husband be what he was before that little paper came into my family.

DISCHARGING A DEBT.—A debtor in jail, sent to his creditor to let him know that he had a proposal to make, which he believed would be for their mutual benefit. The creditor called on him to hear it. "I have been thinking," said the former, "that it is a very bad thing for me to be here, and to put you to the expense of one dollar and twenty-five cents per week. My being so chargeable to you has given me great uneasiness—for heaven knows what it may cost you in the end: therefore, what I would propose is this—you shall let me out of jail, and allow me one dollar a week, and let the twenty-five cents go toward discharging the debt."

SCIENCE OF THE SOUL.—The faculties of the soul do not develope themselves together and at once. Their successive developement is adapted to our wants; they appear at the proper moment, in order to enlighten, to enjoy, or to combat. To study the precise period of their appearance, to learn, to recognise, to direct, and to harmonize them, is what we term forming education of men. This education belongs by right to women; they alone know how to smile upon childhood; they alone can seize by sympathy the first transports of a soul which is awakened by their caresses. We transfer this work to rhetoricians and to logicians, but they arrive too late. In order to understand well the science of the soul, its alphabet must be studied near the cradle. Whoever has not the beginning of it, cannot guess at its result.

DUEL KEPT ON THE TAPIS.—Mr. A., bachelor, challenged Mr. B., a married man with one child, who replied that the conditions were not equal, that he must necessarily put more at risk with his life than the other; and he declined.—A year afterwards he received another challenge from Mr. A., who stated that he too had now a wife and child, and supposed therefore the objection of Mr. B. was no longer valid. Mr. B. replied that he had now two children, consequently the inequality still subsisted. The next year Mr. A. renewed his challenge, having now two children also, but his adversary had three. This matter, when last heard from, was still going on, the number being six to seven, and the challenge yearly renewed.

BALLOONING ACROSS THE ATLANTIC.—the London correspondent of the Boston Traveller, says, that in a conversation with Green, the æronaut, a short time since, he (Green) stated that if a sufficient sum was secured to him in England and America to remunerate him for making the ærial voyage, he would go to Boston in the steamer, and, taking advantage of the westerly winds, would return to England in his balloon. The writer thinks it will be attempted.

SENSIBLE—A shrewd farmer in the Vermont Legislature declined answering the speech of a member who was remarkable for nothing but his frothy and pugnacious impudence and self conceit, thus:—"Mr. Speaker, I can't reply to that ere speech, for it always wrenches me terribly to kick at nothing."

CAST IRON POSTS, BEAMS, OR SUPPORTERS for dwellings or warehouses, have been condemned by a parliamentary commission in England. It is a common practice in many foundries, to remove castings red-hot from the sand. In the Oldham mill, in several beams, large seams were discovered. The commissioners' report recommends wrought iron in the place of cast iron, for beams and front posts, or supporters, as it can be relied upon, whereas cast iron cannot.

POLITENESS RECIPROCATED.—A criminal was in the county jail awaiting his trial for murder, with a reasonable prospect of conviction. The candidate for sherifality called one day to see him, when the prisoner, wishing to compliment his visitor, said to him; "If I should be condemned to be hanged, I know of no one by whom I would rather be hung than by you." The visitor, with one of his blandest smiles replied:—"And should I be elected sheriff, I know of no one I would rather hang than you."

AFFECTION IN A BRUTE.—there are many remarkable instances of affection in a brute that we do not often find in human beings. The Woodville Republican states that on the Pittsbare plantation two little negro boys were recently riding an old poney in pursuit of cattle, when all of a sudden, a wild-cat leaped from a fence upon the pony and seized upon one of the children. the poney in a fright, jumped away. The older boy seized the cat to rescue the other from his claws and teeth, when the poney returned to their rescue, and actually stamped the wild cat to death! The poney is a pet, some 25 years old—lives in the yard and eats slops; is a great favourite—walks among the cradles with the utmost care; and, in gratitude for kindness, has exhibited a trait of his character that would honour a man.

NOT SO POOR AS I MOUT BE.—One day as Judge Parsons was jogging along on horseback over a destitute road, he came upon a log hut, dirty, smoky and wretched. He stopped to contemplate the too evident poverty of the scene. A poor, half-starved fellow, with uncombed hair and unshaved beard, thrust his head through a square hole, which served for a window, with, "I say, Judge, I aint so poor as you think me to be, for I don't own this ere land."

TO JOIN GLASS TOGETHER.—Melt a little isinglass in spirits of wine, adding thereto about a fifth part of water, and using a gentle heat; when perfectly melted and mixed, it will form a transparent glue which will unite glass so that the fracture will be hardly perceived.

THE EMANCIPATED SLAVES.—Judge Leigh, John Randolph's Executor, is endeavoring to find a location for the slaves manumitted by the will of that eccentric man. A legacy of $25,000 is left to them. They do not wish to go to Liberia, and they cannot remain in Virginia. Judge L. is seeking a place in a free State, where they may be placed without danger of molestation from invidious laws or a still more invidious public feeling.

FIRST PRINTER IN AMERICA.—The first printer in North America was Samuel Greene. The press he used was procured by Rev. Joseph Glover, who died in 1638, on his voyage to Massachusetts. "The Freeman's Oath" was the first thing printed, in 1639—the next, an Almanac for New England, made by one Pierce, a mariner—and the third, the New England Version of the Psalms, in 1640. Greene afterwards printed Elliot's Bible, and the Laws of Massachusetts, Plymouth, and Connecticut.

POVERTY.—It is no honor to be rich, and no disgrace to be poor; therefore it is exceedingly foolish to strive after the appearance of wealth, if we are poor, and to be ashamed of the poverty which circumstances have brought upon us. This folly is a source of continual misery, and is seldom productive of any good.

HOOSIER WEDDING.—"What is your name, sir?" "Matty." "What is your name, miss?" "Polly." "Matty, do you love Polly?" "No mistake." "Polly, do you love Matty?" "Well, I reckon." "Well, then, I pronounce you man and wife."

CATALOGUE OF AMERICAN PATENTS ISSUED IN MAY, 1845.

To Reid R. Trockmorton. of Brooklyn, N. Y., for improvement in the machine for planing, tongueing, and grooving, rebating and beading planks and other lumber: patented 1st May, 1845.

To George Upham, of Hebron, Ohio, for improvement in closing and opening the entrance to bee-hives: patented 1st May, 1845.

To Charles F. Oliver and George W. Jackson, of Lynn, Massachusetts, for improvement in pianofortes: patented 1st May, 1845.

To Oliver Allen, of Norwich, Conn., for improvements in the machine for dredging or excavating: patented 1st May, 1845.

To Isaac L. Chapman, of New York, for improvement in the manner of cutting fabrics to be made into hat-bodies by sewing: patented 1st May, 1845.

To George W. Billings and John Harrison, of Glasgow, Missouri, for improvement in the machine for hatcheling and cleaning hemp and flax: patented 1st May, 1845.

To Stephen R. Parkhurst, of New York, for improvements in the machine for ginning cotton and wool: patented 1st May, 1845.

To Hiram A. Pitts, of Winthrop, Maine, for improvement in cutting and crushing corn-fodder: patented 1st May, 1845.

To Richard M. Hoe, of New York, for improvement in printing presses: patented 1st May, 1845.

To Frederich Walther, of Wincester, Va., for improvement in pumps: patented 1st May, 1845.

To Samuel Taylor Cambridge and Abbot R. Davis, of Boston, Mass., for machine for filling brush blocks with bristles: patented 1st May, 1845.

To Thomas Rogers, of Paterson, N. J., for improvement on Horatio Allen's cut-off valves for steam engines: patented 1st May, 1845.

To James Semple, of Alton, Ill., for improvement in steam coaches adapted to the prairies: patented 1st May, 1845.

To Isaiah W. P. Lewis, of Boston, Mass., for improvements in the method of obtaining permanent foundations for hydraulic structures: patented 1st May, 1845.

To Samuel Utter, of New York, for improvement in stoves: patented 1st May, 1845.

To Francis L. Headenburg, of New York, for improvement in stoves: patented 7th May, 1845.

To John Loudon and Thomas Shaw, of New York, for improvements in the machine for polishing and equalizing the nap or pile on the surfaces of hats: patented 7th May, 1845.

To William Y. Singleton, of Springfield, Ill., for improvement in the machine for breaking and cleaning hemp, &c.: patented 7th May, 1845.

To George A. Scherpf, of New York, for improvement in curing meats; patented 7th May, 1845.

To Pierpont Seymour, of East Bloomfield, N. Y., for improvement in sowing machines: patented 7th May, 1845.

To Wade Haworth, of Dayton, O., for improvement in stuffing and stretching horse-collars: patented 7th May, 1845.

To Reuben Fairchild and Starr Fairchild, of Trumbull, Conn., for improvement in boot-crimps; the aforesaid Reuben Fairchild having assigned his right, title, and interest in said improvement to Starr Fairchild: patented 10th May, 1845.

To John D. Cornelius and James Mott, jr., of Westbury, N. Y., for improvements in machinery for knitting fishing-seines and other net-work: patented 10th May, 1845.

To Samuel Rust of New York, for improvement in lamp-wicks: patented 10th May, 1845.

To George W. Billings and John Harrison, of Glasgow, Mo., for improvement in rotting hemp: patented 10th May, 1845.

To James M. Wilder, of Peterborough, N. H., for improvement in meat-cutters: patented 10th May, 1845.

To John F. Winslow and Israel Blanchard, of Troy, N. Y., for improvement in the machine for making hook or brad-headed spikes: patented 10th May, 1845.

To Henry N. Gros, of Palatine Bridge, N. Y., for improvement in cooking-stoves: patented 13th May, 1845.

To Ezekiel B. Foster, of Philadelphia, Penn., for improvement in stencilling: patented 13th May, 1845.

To William C. Grimes, of Baltimore, Md., for improvement in spark-arresters: patented 13th May, 1845.

To Nelson Goodyear, of Newtown, Conn., for improvement in the manufacture of India-rubber fabrics: patented 13th May, 1845.

To Samuell Swett, jr., of New York, for improvement in spark-arresters: patented 13th May, 1845.

To Milton W. St. John, of Plainfield, N. Y., for improvement in machinery for turning wood: patented 13th May, 1845.

To Jane A. Davis, administratrix of Henry G. Davis, deceased, of Clark Co., Ala., for improvement in cotton-whippers and cleaners: patented 16th May, 1845.

To Eli H. Jaques, of Springfield, Vt., for improvement in portable horse-powers, patented 16th May, 1845.

To David B. W. Hard, of Bethlehem, Conn., for improvement in trusses: patented 16th May, 1845.

To W. H. Taylor, of Rochester, and A. P. Norton, of Waterville, N. Y., for improvement in the parallel bench-vise: patented 16th May, 1845.

To Theodore Ely, of New York, for improvement in machinery for burring wool and cleaning cotton: patented 16th May, 1845.

To John J. Springsteen, of Owego, N. Y., for improvement in water-wheels: patented 16th May, 1845.

[*To be continued.*]

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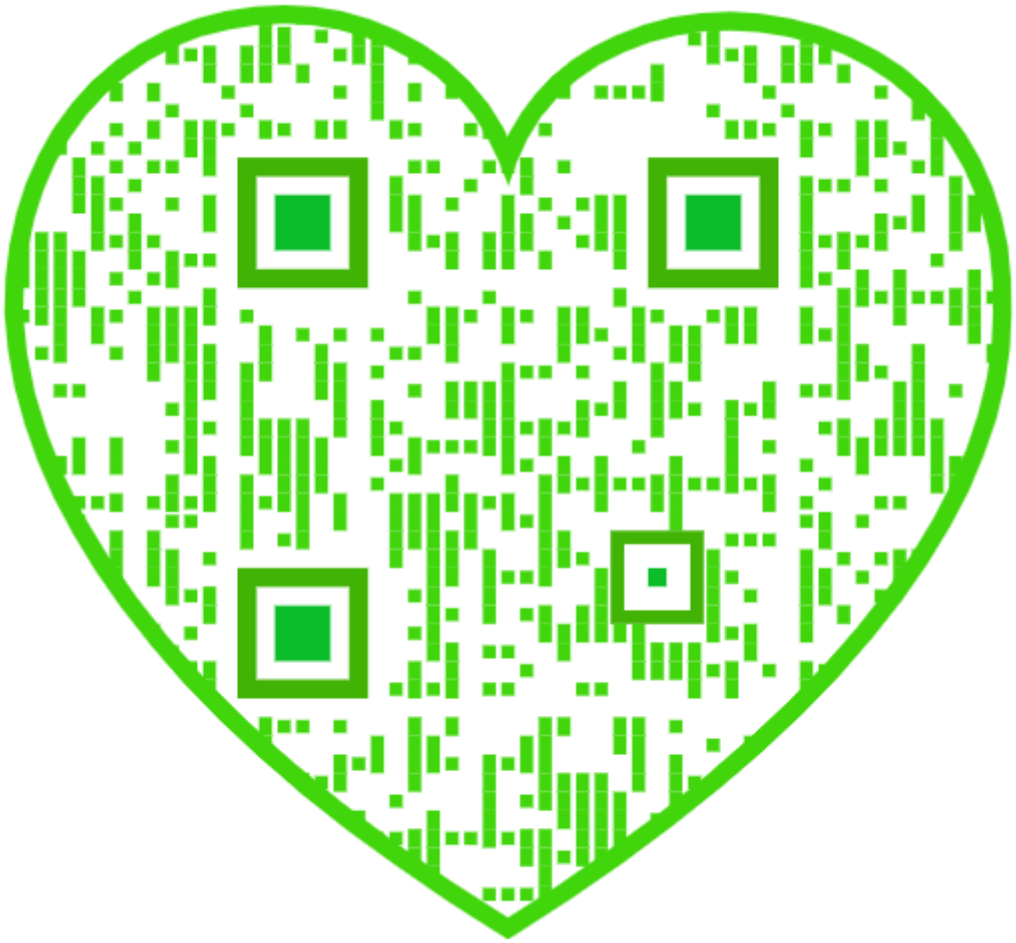
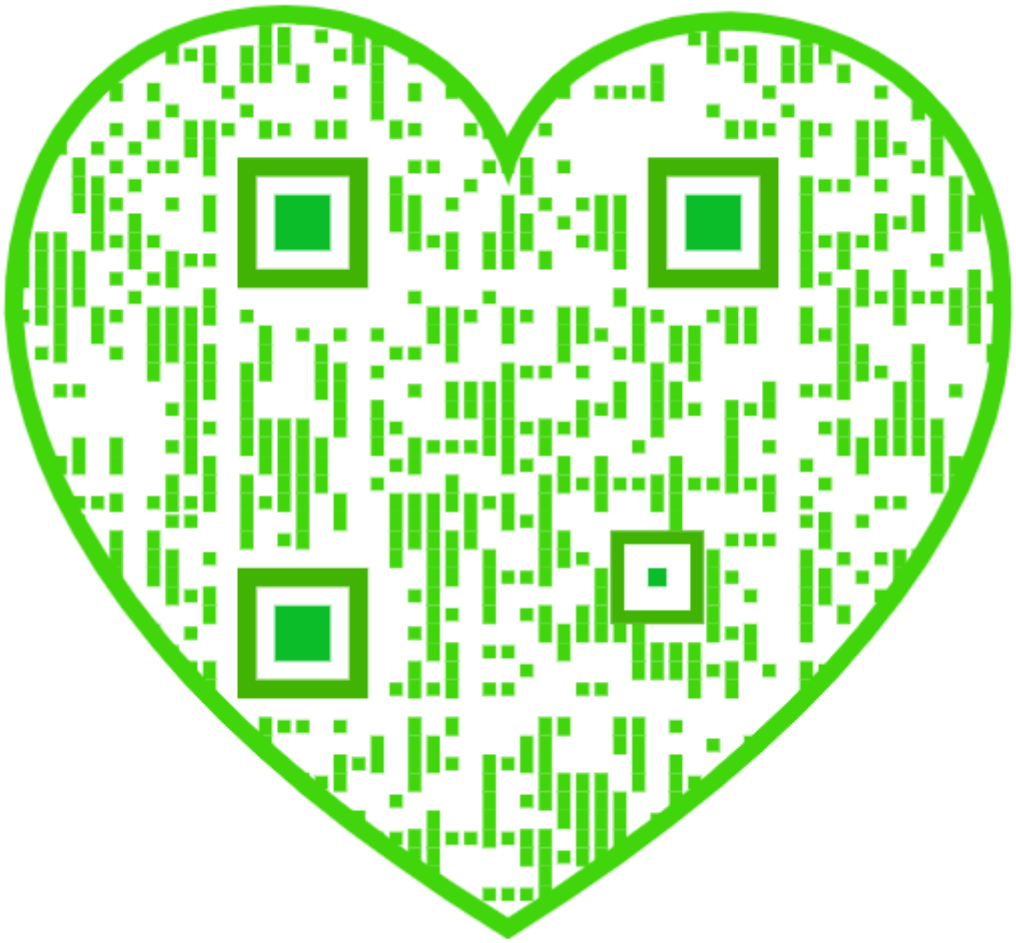




SCIENTIFIC AMERICAN

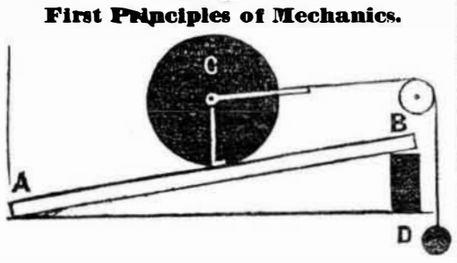
NEW-YORK, THURSDAY, OCT. 9.

SECURE THE FIRST NUMBERS.—We have a few copies of our first number remaining, and those who intend to become subscribers will do well to secure them while they may. There will soon be a pressing demand for them, when too late. We are authorized to offer fifty cents for the first number of the New York Mechanic.

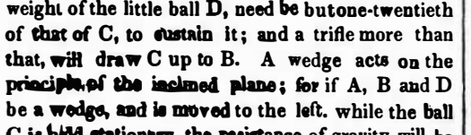
TO CORRESPONDENTS.—The communication of M. W. H. is in type, but unavoidably deferred;—we solicit his patience. Our friend S. D. T is reminded that we have other people to please, besides him. The intelligence required by S. P. F., concerning valves, &c., will soon be furnished, with an illustration. The intelligence required by E. G. C. is difficult to obtain. Others will receive due attention.

ELECTRICITY, AND MORSE'S TELEGRAPH.—We have now in course of preparation, several engravings for the illustration of Galvanism, Magnetism, Electro-magnetism, and Magneto-electricity; also a full representation of the machinery of the Electro-magnetic Telegraph.

First Principles of Mechanics.



THE INCLINED PLANE, may be supposed to consist simply of a plank A, B, one end of which is elevated a little higher than the other. If the perpendicular elevation of B is equal to one-tenth of the length of the plank, then a force equal to one-tenth of the weight of the ball C, or a trifle more than that, will be sufficient to propel the ball C towards B. It will require as much *power*, to roll this ball a distance of ten inches towards B, as to raise it one inch perpendicularly; but the *force* required to raise the ball perpendicularly, is ten times as great as that required to move the ball towards B. If the length of the plank be ten feet, the elevation of B, one foot, and the weight of the ball 20 lbs,—then the force required to move the ball towards B is a trifle more than two lbs. If the elevation of B was six inches, the force required to move the ball towards B would be a little more than one lb. And in all similar applications, the requisite force bears the same proportion to the weight, that the perpendicular elevation does to the length of the inclined plane. In this instance, the ball itself becomes a lever, the inclined plane being the fulcrum; particularly that part of it with which the ball comes in contact. For if a line is drawn from the centre to the bottom of the ball, and thence horizontally to the point of contact, it will be seen that the horizontal line bears the same proportion to the vertical, that the elevation of B does to the length of the plank. Now imagine this angular line to be a lever; the point of contact is the fulcrum, the angle sustains the weight, and the force is applied at the top of the lever, which is the centre of the ball: therefore, if the proportions are as 20 to 1, then the weight of the little ball D, need be but one-twentieth of that of C, to sustain it; and a trifle more than that, will draw C up to B. A wedge acts on the principle of the inclined plane; for if A, B and D be a wedge, and is moved to the left, while the ball C is held stationary, the resistance of gravity will be the same as in the former case; and the principle of the lever is equally conspicuous in the action of the wedge as in the inclined plane, as before illustrated. In either case the leverage is ascertained by comparing the length with the inclination; and the same rule will also apply to the *screw*, which is merely a spiral inclined plane. The power, or rather the leverage of a screw is found by comparing the length of the body of the screw, with the length of one of its threads, measured spirally. We would remark in this place, that in the use of the common screw, there is an immense loss of power by friction; and for this reason, its use as a multiplier of force by leverage is likely to be discontinued. Yet some would argue in favor of the screw, on the ground that it will by means of friction, retain its position notwithstanding any amount of resisting force. This is indeed convenient, as would also be a sled or drag in preference to a cart, for hauling a heavy load up a hill:—it would save the teamster the trouble of *trigging* the wheels when the team stops to take breath; this convenience, however, would hardly compensate for the loss of power. The Toggle is another arrangement for procuring an immense leverage. It consists of two bars, connected together by a rivet or hinge joint thus:



A great force is produced by moving these bars from an angular position, into a direct line. Let these bars be each, two feet long, with the extreme ends placed against the hubbs A and B, while the joint C is elevated one inch;—five lbs. of pressure on C will exert a force or pressure on the hubbs, of no less than 120 lbs., and this force will be increased to infinity as the bars approach a direct line at D. In this case, the hubb which stands the most firm of the two, must be considered as the fulcrum; and this is another instance, in which the pressure sustained by the fulcrum, is equal to that exerted by the lever on another object.

(To be continued.)

The Effects of the Introduction of Mechanical Improvements.

It is not uncommon to hear people speak against new inventions in general terms, thus advocating the policy of restricting the community to the present facilities and conveniences, or rather of retrograding to a state of barbarism, as many nations have done before. We are not disposed to express our opinions of the intellectual condition of those who uniformly discourage and oppose the advance of improvements, either moral or scientific. Some contend openly that the introduction of labour-saving improvements in machinery, is a disadvantage to the community at large, inasmuch as it diminishes the demand for labour, and consequently deprives many labourers of employment; but we shall endeavour to show the fallacy of this position in a manner too plain to be misunderstood. We would first remark, however, that if this point is conceded, it will go directly to prove and establish the propriety of abandoning, at least gradually, the various labour-saving mechanical inventions which are now in use.

Suppose, for instance, that we decried the *printing press* and apparatus, (suppressing of course, at the same time, the importation of foreign prints) what an immense demand would immediately be produced for scribes and copyists; or if we discard carriage wheels, how many thousands of porters would be required for the conveyance of merchandize. This course would not only give employment to many more people than are now required, but the price of this kind of labour, would be greatly enhanced. Horses, also, and other beasts of burden would be in great demand, and command vastly higher prices than at present; moreover, provisions would become so exceedingly cheap in the country, that a labourer or carrier might probably obtain five times as much for a day's work, as he can under our present system of facilities. But the effect that the measure would have on the interest of the farmers and the merchants, is another consideration. We might enlarge on this part of our subject by supposing the plough also, and the loom, and even the axe and other tools to be discarded; but we think it needless, presuming that no one will be disposed seriously to advocate the policy of such a course. But as our facilities are considered to be now in a state bordering on perfection, why should we be constantly striving to improve them? especially, considering that many mechanics and labourers often find it difficult to obtain employment. To this we answer, that the general effect of the introduction of mechanical improvements, is diametrically opposite to that which this question supposes; and in support of this position we shall offer a few incontrovertible illustrations, commencing with what is termed cotton machinery.

The *Gin* for loosening the cotton and separating the seeds therefrom, will, with the attendance of one man, accomplish as much work as ten men could without it. Then the picker, the spinner and the loom, together with the various machinery for calico printing, which, all together will accomplish more than one hundred times as much work as could be done by an equal number of hands without them. Yet, in consequence of the introduction of these improvements, there are ten times as many people employed in the raising of cotton, and in the manufacture of cotton fabrics, as would have been without them. We will next consider the manufacture of clocks—an article which had been manufactured for centuries before Mr. Terry introduced improved mechanical facilities for this purpose. This was about twenty years ago, And as a direct consequence, the price of brass clocks has been reduced from $60 to $63: and there are at the present time, at least five times as many persons employed in the manufacture of clocks, as would have been if these facilities had not been introduced. The reason is obvious: the price being greatly reduced, many thousands of people have bought them, who would not have thought of paying the former prices. We will notice one more instance—that of the improved facilities for building. We now have saw-mills—brick machines, and a great variety of carpenters' tools; besides wheel carriages, on which to haul the materials together. Will any one contend that a greater number of people would have been employed in the building business, without these facilities than we now have employed? We think not: the point is conceded.

Much opposition has been manifested, in various parts of this country, to the introduction and construction of railroads, on the plea that it would reduce the demand for horse labour, and injure the business of the waggoners. But results have proved, at least in most cases, that where railroads have been constructed, a variety of new and profitable avenues of transportation, or carrying business, have been opened, which were not before available. And thus will ever be the case, that the invention and introduction of labour-saving improvements, instead of reducing the demand for labour, will, by opening new avenues of trade and new inducements of enterprise, tend to increase the demand for, and enhance the value of the labouring classes. Let then the sentiment be forever discarded, which would hinder the invention and introduction of labor-saving improvements.

A MORMON BATTLE.—As was to be expected, the persecuted Mormons have resisted the lawless mobs who were employed in wantonly destroying their property by fire. A considerable battle has occurred near Carthage, in which eighteen of the assailants were killed, and many more taken prisoners by the Mormons. The Governor, who has hitherto done little or nothing to protect the Mormons, now calls on the militia to quell the disturbance. We should think it was high time.

A SINGULAR CIRCUMSTANCE.—The river Opoopie, Alabama, during the late dry season, became entirely dry, with the exception of one deep hole in its bed. A few days ago a man who resides in the vicinity, visited the place, and found seven hogs, a steer, a large buck, and a rattlesnake, all lying dead near the margin of the pool. The cause of the death of these animals still remains a mystery.

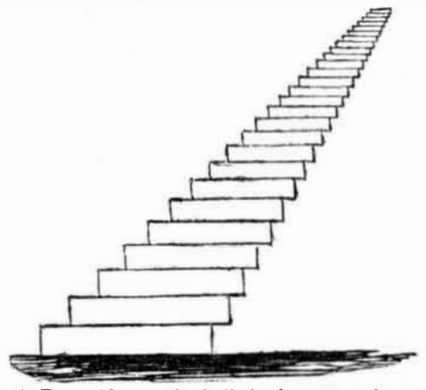
The Art of Painting.

(Continued from No. 6.)

CARRIAGE PAINTING.—In this, as in other painting on wood, the paint is mixed with oil without spirits, with litharge for a drier; but for the succeeding coats, the paint is ground in boiled oil and japan, in the proportion of three to one, and diluted with spirits of turpentine, so as to flow freely and lay smooth, without showing any imprints of the brush. In painting waggons or sleighs, the work must be thoroughly smoothed with glass-paper, after the first coat is dry. Three, or at most four coats of the required color is sufficient: or if the intended color is expensive, the two first coats may be of some cheap, but similar color. If the paint is fine, and well laid on, it will require no smoothing, but may be finished with one or two coats of copal varnish. If the work is such as to require striping or ornamenting, this is done prior to varnishing. The colors for striping are prepared in a similar manner; but colors for ornamenting may contain a larger proportion of japan, but less of spirits. Flat camel-hair brushes are sometimes used in laying on the last coat of paint, as they leave the paint more smooth. Long camel hair pencils are used for striping, and the artist guides his hand and pencil by means of *guaging* with his fingers: that is, he places some one of his fingers in such a position, that it may bear on the edge of the pannels or frame work, sliding along as the hand moves with the pencil. In striping wheels, the finger is made to slide on the edge of the spokes, or of the rim, as the case may require. The only requisite rules to be observed in varnishing, are to spread the varnish uniformly, laying on as full and flowing a quantity as will remain on a vertical surface without running, and finish by brushing it in the direction of the grain of the wood. In painting coach bodies, where a polished surface is required, six, eight, or ten coats of paint are applied. The paint for the second, third, fourth and fifth coats, may consist principally of white lead, with a small quantity of black or other color, and a little litharge for drying; these are mixed with boiled oil, to the consistancy of soft mortar, and then diluted with spirits sufficient for the convenience of grinding them; and when ground the compound is again diluted with spirits, till it will work freely with a brush. These several coats being successively allowed to dry, the surface is levelled and smoothed by a piece of pumice stone, being made level on the work side; and the work is kept wet with water during the process. Then several more coats are applied, each in succession being smoothed with pumice-stone, finely ground, mixed with water and applied with a piece of cotton or linen cloth, After this fitting up, the work may receive two coats of the required color, prepared the same as for waggons, and the last coat is smoothed with fine pumice. The work is then varnished, and the last is polished with rotten stone and sweet oil. The ornamenting, if any, is done after the first coat of varnish is put on, but prior to the second.

[To be continued.]

A Geometrical Curiosity.



A Pyramid may be built in the proportion and *position* represented in this cut,—constructed of flat stones placed one on another, *loose and unconfined*,—and the fabric will sustain itself and stand; appearances to the contrary notwithstanding. This will appear very incredible to many, but the phenomenon may be accounted for, and explained as follows:

Suppose a line drawn upward, perpendicularly, from the right of the base or foundation stone; it will be readily seen that there is more weight of stone on the left of the vertical line than on the right; because the basement stones being square, are larger in both directions than those above. Yet, it may be inquired, if the stones be loose and unconfined, why does not the pyramid break off at some distance from the ground? The answer is, that the same rule holds good with regard to any section of the fabric:—A perpendicular line drawn from the right of any one stone, will show a preponderance of stone on the left. The experiment is very easy of proof by a set of square pieces of thin boards. A set of such blocks might prove an interesting constituent of a cheap philosophical apparatus for common schools.

HUDSON RIVER RAILROAD.—The prospects in this enterprise brighten daily. We learn that the towns and cities on the margin of the river will cede the right of way through their respective boundaries, and that the Common Council of this city will cede the privilege of one of the principal streets, and a right of way through the entire extent of this island. The river route is the best yet proposed, and we can not doubt that the project will succeed.

It is stated in the Sun, that a mercantile house in this city, offers to take *one-third* of the stock of the Hudson River Railroad, and that another capitalist has offered to furnish the means to construct the road to Piermont—about 25 miles. A second survey of the entire route is in progress, and the prospect is, that this road will be put forward with energy.

GUNPOWDER.—The Peconia from New York went into Key West a few days ago, minus a cargo of gunpowder which she threw overboard in a storm of thunder and lightning, for fear of being struck.

Illustrations of Chemistry.

(Continued from No. 6.)

THE GASES.—Hydrogen, which is one of the components of water, is never found in a pure state, except in the gaseous form; yet it is often found dry and solid in combination with lime, soda, and various other articles. Hydrogen gas is the lightest substance known, its specific gravity being but one-fifth of an ounce per cubic foot, or one-sixth of that of atmospheric air: hence it is used in the inflation of balloons. In conjunction with oxygen, it is very inflammable, and is the principal ingredient employed in supplying the ordinary gas-lights: that being carbonated hydrogen. Hydrogen gas is readily produced in abundance by the decomposition of water, which is done by various modes of process.

Nitrogen is found pure, only in the gaseous state, but it forms the basis of the nitric acid, which is a combination of nitrogen and oxygen: it abounds also in nitre, (salt petre) which is a nitrate of potash. It is capable of a great variety of combinations, which will be noticed under the head of "acids." It may be obtained by decomposing atmospheric air, of which it is a principal constituent: or by heating any substance containing it.

Carbonic acid gas, is a combination of oxygen and carbon, (carbon being found pure only in the diamond,) and is the heaviest gas known, and constitutes the grateful sparkling sharpness of "soda waters," and all fermented liquors. Its gaseous state depends on the presence of heat, and when heat is wholly extracted from it, it is condensed and precipitated in the form of snow. This gas is readily procured by heating any substance containing it, or by the decomposition thereof.

The nitrous oxyde, or exhiliarating gas, is a combination of nitrogen and oxygen, and is produced by heating nitrate of ammonia to a red heat. This gas, when respired, produces pleasurable sensations, but is injurious.

There are many other compound gases, but which are not of sufficient importance to be described in this place.

EXPERIMENTS.—To a mixture of two parts water with one of sulphuric acid, in a phial or flask, add an equal weight of the filings of zinc or iron. Hydrogen gas wil be rapidly evolved, and may be received and retained in a bladder tied over the neck of the flask.

Attach the stem of a tobacco pipe, to a bladder containing hydrogen gas, and dip the bowl of the pipe in some strong soap suds—then raise it above the surface, and pass a stream of gas through the pipe, which may be shaken off, and being lighter than air, it will rise like a balloon, and if not impeded, will ascend out of sight.

Form a bubble in this way with a mixture of hydrogen and oxygen gases;—when the bubble is detached, apply the flame of a candle thereto, and the bubble will explode with a sharp report, and as loud as that of a pistol. By this combustion, real water is produced.

Put a little metallic potassium into a bladder in which is a small quantity of atmospheric air; the potassium will absorb the oxygen of the air, leaving the nitrogen gas nearly pure.

Into a little diluted muriatic acid in a flask, drop some pulverized carbonate of lime (marble,) or super carbonate of potash, (saleratus); carbonic acid gas will be rapidly liberated, producing a violent ebulition, and may be received in a bladder as above mentioned.

Pour very gently, and where there is no current of air stirring, a quantity of carbonic acid gas into a vessel that is open at the top. Although this gas is totally invisible, a down feather, or a light paper boat, may be made to float on its surface as on the surface of a liquid. This experiment, if well managed, is exceedingly interesting.

Place a lighted lamp or candle within a vessel of carbonic acid gas, and it will be extinguished as instantaneously as if plunged in water.

(To be continued.)

RAIL ROAD ACCIDENT.—The cars from Philadelphia, on the Amboy rail road, were thrown from the track, one day last week, by running over a cow, and one of the passengers was killed instantly, and two others were severely injured. It seems to us a wonder that similar accidents do not more frequently occur, considering the extreme negligence indulged on the New Jersey roads. We have witnessed many instances of the trains being seriously retarded by herds of cattle on the roads, by night as well as by day. We, with many others, were much amused lately by a ludicrous occurrence on the Trenton road. We heard the shrill steam-whistle and the ringing of the bell, while the speed of the train was suddenly checked by the brake. The train continued at a speed of about ten miles per hour, however, and the clamor continued so long that many of the passengers looked forward to see what was the impediment, and behold some eight or ten cows and young cattle were merrily galoping ahead of the engine, directly on the track, without evincing the least disposition to turn to the right or left. As the engine pressed upon their heels, they only ran the faster, but right ahead. At length one of the firemen jumped upon the road, and by great effort succeeded in starting them from the middle of the track, and the train passed ahead.

COST OF RAILROADS.—The Boston and Worcester Railroad cost 62,591 dollars per mile: the Western, from Worcester to Albany cost $49,270 per mile: the Eastern, from Boston to Portsmouth $45,160: Boston and Maine railroad, through Haverhill, $26,511. Lowell and Nashua, $26,000: Boston and Fitchburg, $23,000: Nashua to Concord, N. H., $20,000. The road last named pays 12 per cent on the cost, but the stock does not command so high a price as that of the Worcester road which pays only 7 1-2 per cent.

A NICE CALCULATION.—If a man begins to save ten cents a day, when he is twenty-one years old, and continues to do so until he is seventy, he will then be worth $10,926.37.

VARIETY

Two white men—or nearly so—were lately arrested on board one of the Mississippi steamboats, and imprisoned on suspicion of having African blood in them. They had $1,000 in cash with them, which may account for this arrest.

The editor of the Christian Republican informs his readers that he had been to *muster*, but had not got sufficiently over it to *speak* of it. It is evident he had not been *recruit*-ed.

A young lady being severely censured by her mother because she had permitted a young man to give her a kiss, replied, "La, mother, if you will say no more about it, I will give it back to him to-morow."

The London Times says that some of the poor of the Andover Union, who were employed in crushing bones, are in the habit of gnawing them, like dogs, to appease their hunger.

Some of the southern papers are strongly advocating and encouraging manufactories in the south, and report many movements on that subject. We wish them success.

"Recollect that every vote given for Ichabod Goodwin is in favour of the importation of foreigners as labourers."—*Manchester Dem.* Yes, yes, we'll recollect it.

The lead region in Missouri is said to extend about 70 miles in length and 50 in width, and contains lead enough, if converted to *white* lead, to paint the world.

The telegraphic communication between New York and St. Louis, is expected to be carried via New Orleans; making the distance of nearly 3,000 miles.

The new Custom House in Boston is rapidly approaching completion. The heavy columns are of polished granite, and the whole fabric is constructed in excellent style.

The cultivation of cotton by free labour is about to be commenced in Tennessee, by a company of nearly a thousand Germans. So says the "Western Citizen."

The Roman Catholic population in the United States, is estimated at 1,500,000. They have 675 churches, and 592 other stations, with 76 literary institutions.

There are now four female boarding schools, besides several common schools, among the Choctaw Indians. About 600 pupils are instructed.

It is anticipated that when the Hudson River railroad is completed, a trip from this city to Montreal may be made in fifteen hours.

A Texas gentleman, now in Europe, writes that a colony of 15,000 Swiss are preparing to leave their country and settle in Texas this fall.

The Oregon settlers raised upwards of 100,000 bushels of wheat last year. A grist mill, with three run of stones, was put in operation.

New York has been excessively thronged with strangers for several days past, insomuch that it has been found difficult to procure lodgings at the Hotels.

An exchange paper speaks of a Dutchman by the name of Inkcrvankondsdoaskunckinkadrachdernay. He could never obtain an introduction to the ladies.

One of our missionaries at Siam, states that one of the princes of Siam has a son named George Washington. Ratheran odd name in that country.

An exchange says that in 1609 the population of New York was only 4,300. Fifty years earlier it was probably less than that number.

Cassius M. Clay, whose printing establishment was broken up by a mob at Lexington, has resumed the printing of the "True American" at Cincinnati.

The number of letters mailed in Providence, R. I., since the reduction of postage, has been double what it was the corresponding month last year.

It is stated, in the Southern Planter, that successful experiments have been made in the cultivation of the Chinese tea plant. Look out for Virginia tea.

The Razor Strop man is discoursing poetically, pathetically, facetiously, parabolically, and particularly razor-stropically at Bangor.

The people of Alabama have decided in favor of having the Legislature assemble only once in two years. They will have laws enough at that.

"No gentleman admitted without pantaloons on," was a notice posted up among the rules of a select ball, which was held in Mexico in June last.

New corn was selling at ten cents per bushel, wheat thirty-five cents, and flour at one cent per pound, in Indiana, two or three weeks since.

The pine forests of North Carolina yielded last year 200,000 barrels of spirits of turpentine, besides 75,000 barrels of the raw material, shipped.

The late President Harrison being advised to keep a dog to protect his garden, replied, "Rather let our Sunday school teachers take care of the boys."

A working cooper in Norwich, Eng., keeps no less than 10,000 operatives at the business of spinning silk! The operative -worms.

Messrs. Asten & Co Haven, have a contract with the Government 000 pistols at $6,50 each:—amounting to $

The passengers by the Long Island route, came through from Boston, on Saturday, in eight hours and a half, running time.

Miss Mary Fleming, of Wayne Co., Ohio, recently recovered $2,250, in a suit of breach of promise. The verdict was applauded by the audience.

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The Printer.

He stood there alone at that shadowy hour
By the swinging lamp dimly burning;
All silent within, save the ticking type,
All without, save the night watching turning;
And heavily echoed the solemn sound,
As slowly he paced o'er the frozen ground.

And dark were the mansions so lately that shone,
With the joy of festivity gleaming.
And hearts that were beating in sympathy then,
Were now living it o'er in their dreaming;
Yet the Printer was there in his shadowy room,
And he set in his frame-work that rich man's doom!

The young wife was sleeping, whom lately had bound
The ties that death only can sever;
And dreaming she started, yet woke with a smile,
For she thought they were parted for ever!
But the Printer was clicking the types that would tell,
On the morrow *the truth* of that midnight spell!

And there lay the statesman, whose feverish brow
And restless, the pillow was pressing,
For he felt, through the shadowy mists of his dream,
His loftiest hopes now possessing;
Yet the Printer worked on, mid silence and gloom,
And dug for Ambition its lowliest tomb.

And slowly that workman went gathering up
His budget of grief and of gladness;
A wreath for the noble, a grave for the low'
For the happy a full cup of sadness;
Strange stories of wonder to enchant the ear,
And dark ones of terror, to curdle with fear.

Full strange are the tales which that dark hour shall bear,
To palace and cot on the morrow;
Oh welcome, thrice welcome, to many a heart!
To many—a bearer of sorrow;
It shall go like the wild and wandering air.
For life and its changes are impressed there.

Be Kind.

Be kind to thy father—for when thou wert young,
Who loved thee so fondly as he?
He caught the first accents that fell from thy tongue,
And joined in thine innocent glee.
Be kind to thy father, for now he is old,
His locks intermingled with grey,
His footsteps are feeble, once fearless and bold;
Thy father is passing away.

Be kind to thy mother—for lo! on her brow
May traces of sorrow be seen,
O, well mayest thou cherish and comfort her now,
For loving and kind hath she been.
Remember thy mother—for thee will she pray,
As long as God giveth her breath,
With accents of kindnees, then cheer her lone way,
E'en to the dark valley of death.

Be kind to thy brother—his heart will have dearth,
If the smile of thy love be withdrawn;
The flowers of feeling will fade at their birth,
If the dew of affection be gone.
Be kind to thy brother—wherever you are,
The love of a brother shall be
An ornament purer and richer by far,
Than pearls from the depths of the sea.

Be kind to thy sister—not many may know
The depth of true sisterly love;
The wealth of the Ocean lies fathoms below
The surface that sparkles above.
Thy kindness shall bring to thee many sweet hours,
And blessings thy pathway to crown:
Affection shall weave thee a garland of flowers,
More pre cious than wealth or renown.

THE LENGTH OF A MILE.—In England and America, a mile contains 1,760 yards; in Russia, 1,100; in Italy, 1,476; in Spain, 5,028: and in Ireland, 2,200. An Englishman travelling on a bad road in Ireland, enquired why the miles were so excessively long? "An' surely we thought the road rather deficient in quality, and therefore made it up in quantity, jist," was the ready reply.

A man, with a large family, was complaining of the difficulty of maintaining all. "But you have sons big enough to earn something, and help you now," said a friend. "Ah, there's the difficulty," replied the poor man, "they are *too big* to work.

A GOOD CONSCIENCE.—James, said a good woman to her husband, I can't sleep to-night: I keep thinking about that dollar that you promised for the paper, the man wants the money, and I shall never have any peace till it is paid.

A man, Maxwell, in England, lately ran twenty miles in 1 hour 58 minutes and 20 seconds, on a wager of 200*l* to 100*l* that the distance could not be run in two hours.

AN OLD ACQUAINTANCE.—The following "conversation" was original in the N. Y. Mechanic about four years ago. It has subsequently appeared in more than 100 different papers, (without credit of course,) and is still travelling. Having found it in one of our new exchanges, we have decided to clip it and give it another push.

HOOSIER CONVERSATION.—"Hallo stranger, you appear to be travelling?"
"Yes, I always travel when on a journey,"
"And pray, what might your name be?"
"It might be Sam Patch, but it is'nt."
"Have you been long in these parts?"
"Never longer than at present—5 feet 9."
"Do you get any thing new?"
"Yes, I bought a new whetstone this morning."
"I thought so; you are the sharpest blade I've met on this road."

New Inventions.

IMPROVED SPINNING FRAME.—A Mr. Baxter of Paterson, N.J., has just brought into successful operation a new Spinning Frame, which is highly spoken of as being far ahead of anything of the kind in use. It admits the most direct application of power to the bobbin, by means of a leather belt running the whole length of both sides of the frame, in contact with the tubes upon which the bobbins revolve. It is now in operation at the Beaver mill, in Paterson, N. J.

A CURIOUS BRACELET.—Mr. Thomas E. Banks, Jeweller, has a bracelet of elegant workmanship, with a beautiful miniature painting in the centre, and so constructed that by touching a spring the centre-piece opens, and displays a complete and elegant watch about one inch in diameter, and a perfect time-keeper. We have not learned the price of this jewel, but whatever it may be, we think this mechanism preferable to an expensive display of useless diamonds.

SELF-ACTING PUMP.—A model has been left at this office of an ingeniously contrived pump, which is calculated to raise water from the holds of vessels without any application of power whatever. This is no humbug, and we shall give a full description of the invention, with an engraving, in a few days—perhaps in our next number.

HORSE-SHOE NAIL MACHINE.—A machine has been patented in England, for manufacturing horse-shoe nails. The iron is first rolled into plates, corresponding in width and thickness, to the intended *length* and thickness of the nail. The rollers are moreover closely indented,—the indentation corresponding with the proper shape of the nail,—so that the plates have the appearance of a series of nails in relief, connected by a thin leaf of iron, from which the nails are cleared by a suit of dies, and the nails are ready for use.

NATURAL PHILOSOPHY.—A cotemporary, speaking of the fact that small needles, when dry, will float on the surface of water, gives as a reason for it, that the cohesive attraction of the particles of water to each other is so strong that the weight of the needle is not sufficient to separate them. We cannot see the propriety of this reasoning, nor understand why the particles of water are separated by the immersion of the needle when in a dry state any more than when it has become wet by being once immersed. The reason appears to be this, rather: that when the needle is dry, there is a repulsive property between the water and the dry metalic surface, sufficient to sustain the weight of the needle without its coming into actual contact with the water. But when the surface has once become wet, by having the water pressed against it, the repulsive property no longer exists, and the needle will readily sink. A drop of water may be carefully placed on a plain surface of dry polished metal, and will retain its globular form, and may be rolled about without adhering to the metal; but if the surface be first moistened with water, each additional drop will instantly spread over the surface thus moistened; thus proving conclusively that there is a degree of repulsion existing between the water and the metalic surface.

THE NEW STEREOTYPING PROCESS.—Mr. Josiah Warren, the inventor of this improvement—for an improvement it evidently is,—in an article in the Indiana Statesman, evinces some dissatisfaction, because we noticed an extravagant representation thereof as *a hoax*. Mr. Warren can not possibly suppose that we had the least aversion or prejudice against his invention, but, on the contrary should have noticed its excellence with pleasure, and used our utmost exertion to advance its popularity and establish its reputation, had not our confidence in the reality of any such improvement, been prevented by the extravagance of the newspaper representations thereof. But that an ordinary printer, without anything additional to his ordinary apparatus, could, without the least trouble, or material expense, produce perfect stereotype plates, as hard as iron and ready for use, was a little too much for our faith, without more substantial authority. We believed such representations hoaxical, and we think so still. But what are the improvements? We learned that an agent of the inventor would visit this city, and we anticipated more light. He arrived, and we made some exertions to find him, but did not succeed. Had he called on us, we should have rendered him more efficient aid in introducing the improvement, and selling the right, than any ten men in New York. We examined the city papers for intelligence on the subject, but could learn nothing satisfactory concerning this grand invention. We nevertheless entertain opinions of the invention quite as favorable as those of the courtesy of the inventor, from the specimen in the Statesman, above-mentioned; and shall give our readers the most faithful and favorable desctiption of the peculiar excellence of the improvement, when we obtain the material.

THE PROVIDENCE POST OFFICE.—Well, what of it, say you? O nothing in particular, only that several of our subscribers in that city, who should have received their papers by mail, have informed us that the papers were not received. After receiving this intelligence, we sent the back numbers to supply those that were missing, but have been again informed that they were not received. From this we must infer that some knave purloins the papers from the Post Office.

A LITTRE GREAT CURIOSITY.—A full grown deer, only *eight inches high*, has been brought to England from Java. It is of the species called *mouse deer*; is perfectly domesticated, and is a very interesting animal. It is the only one in England.

POSTMASTERS and others to whom this paper may be sent, are respectfully solicited to exhibit the same to others, that its patronage may be thus extended.

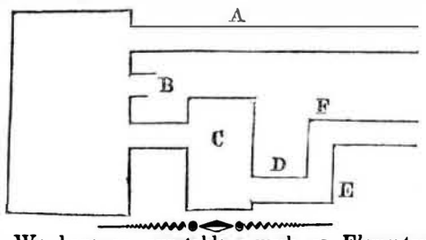
Curious Arts.

TO ENAMEL PICTURE GLASSES WITH GOLD.—The glass must first be washed perfectly clean and dried; then moisten it by breathing on it, or wet it with the tongue, and immediately lay on a leaf of gold, and brush it down smooth. When this is dry, draw any letters or flowers on the gold with Brunswic blacking, (a solution of gum asphaltum in spirits of turpentine) and when dry, the superfluous gold may be brushed off with cotton, leaving the figures entire.—Afterward the whole may be covered with blacking, or painted in any color, while the gold figures will appear to advantage on the opposite side of the glass. This work may be elegantly shaded by scratching through the gold with a steel instrument, (in the end of which many sharp points are formed) previous to laying on the blacking. Oil paints of any kind may be substituted in the place of the blacking, but will not dry so quick.

TO TRANSFER A PRINT TO THE SURFACE OF WOOD OR OIL PAINTING.—The surface to which the print is to be transferred, must be covered with copal varnish; afterward receive a thin coat of a mixture of copal varnish and old linseed oil; or of an article sold by the druggists under the name of *transfer varnish*, and which consists of a mixture of copal varnish and fir-balsam. When this is partly dry, but yet remains sticky or adhesive, the print is first dipped in water, and then allowed to remain a few minutes in the open air, to allow part of the moisture to evaporate. It is then spread smoothly on the varnished surface, with the smooth side down, and gently pressed down on the varnish with cotton, or other soft substance When the varnish has become nearly dry, the print may be pressed down a little harder; and when the varnish has become thoroughly dry, the paper is wet with a sponge, and rubbed carefully with the fingers till the paper peals off in small rolls, leaving all the lines and shades of the print adhering to the varnish.—The process of transferring prints to glass is the same, with the exception of the primary varnishing.

Channels of Fluids.

All substance, whether solid, liquid, or gaseous, are more or less ponderous; and whatever has weight has also inertia. Inertia alone prevents infinite velocity in the escape of a gaseous fluid, through an open aperture and from under any degree of pressure. As much power or force is required to give motion to a pound of gaseous fluid, as would produce an equal motion in a pound of iron or other heavy article. Friction in a gaseous fluid, or between it and a smooth metallic surface, is hardly known to exist. Gas, steam, or atmospheric air, will escape with about the same velocity through the long pipe A, (in the sketth below,) as through the short pipe B. But if the said fluid is conducted to the Chamber C, it loses its momentum, and requires a renewal of force to drive it thence through another pipe. Thus, if a pressure of 1 lb. per square inch is sufficient to drive 100 cubic feet per minute through the pipe A., it will require 2 lbs. per inch to drive an equal quantity through the chamber C. And if the pipe D has angles, as at C and F, more than 3 lbs. per square inch will be required to produce an equal velocity.



We have, on our table, a work on *Elementary* and *Higher Geometry*, *Trignometry* and *Mensuration* in four parts, by Nathan Scholfield. The author claims to have made some valuable improvements in the science. We shall take the first available opportunity of examining its contents, and if the author's views are correct, as by the opportunity we have had of partially examining the work, they appear to be, it must be a valuable acquisition on the subjects of which it treats. We may take occasion to introduce some extracts from the work with the author's consent. The work is just published for sale by Messrs. Collins, Brother & Co., of this city.

THE BALTIMORE SATURDAY VISITOR.—We rejoice to find this old favorite again on our table.—This large, beautiful and interesting paper is published weekly, by Snodgrass & Wehrly, at the low price of $1,50 per annum, in advance. We know no paper which we should recommend in preference.

THE MORNING ARIEL AGAIN.—The sudden puff which we recently gave that little shiner, appears to have *blown it out*. We have not heard of it since.

The town of Rome, in this State, has been built up by the business of making oars from the abundant excellent ash timber in that region. These oars have been shipped to all the civilized nations of the world.

EXTRAORDINARY CASE OF INSANITY.—Five persons, consisting of Mr. Thomas Miller, two sons, and two daughters, were taken with insanity, one day last week, at Pine Grove, Pa. No cause of this singular event, was discovered.

THE COLERAIN GIRLS OUTDONE.—Misses Emelane Tiffany, Viletta M. Tiffany, Nancy A. Tiffany, Olive Cudworth, and Ellen M. Clinton, earned in three weeks, at the Stoneville Mills, in Auburn, Mass, $85,70, averaging nearly six dollars per week each. The number of yards woven was not equal in proportion to that woven at the Colerain Mills, but the cloth was wider, and consequently a higher price per yard was paid. This was not the result of a trial of abilities, but ordinary work.

ERIE RAIL ROAD.—We are gratified to hear tha the whole of the stock has been taken. The subscription books of the Company closed on Saturday evening.

Communication.

[From a gentleman in the Patent Office.]

MY DEAR SIR:—It appears that the world is trying to head itself. A few yeas ago steamboats, railroads, and other modes of conveyance were not thought of, to hurry us through this place of short duration: but now we can talk from city to city. Prof. Morse was not satisfied by the rapidity of the mails by land and water, as they are conveyed by steam;—so with lightning speed he, by wire, conveys news from place to place. Only put up the wires, and he will send your intelligence, news, &c. &c. The manufacturer is still looking forward to see the day when he can get along a little faster: however, several new and very useful improvements have been introduced lately, and some have been the subject of patent. The manufacture of India rubber cloth, wool and cotton cloths, and other fabrics, is still improving. Looms for weaving and knitting are of deep study to the machinist. Of the latter it is only a few years since their introduction to operate by power, so as to work and prove successful; and even now there are many minds at work to improve the power knitting-loom, so as to knit an entire circle without seam, or even the use of an attendant. One thing in the manufacture of Tuscan braid is highly worthy of attention. An invention of Mr. Fitzgerald, of New York city, which, for ingenuity and beauty of mechanical arrangement, is worthy of the highest commendation. The pieces of Tuscan straw being deposited in a box for the purpose of receiving them, the whole operation of taking each separate piece, introducing, bending it over, trimming off the ends or surplus, and transferring and re-transferred the pincers or nippers by which the pieces of straw are firmly held, is performed, and the completed braid is delivered without the hand of an attendant. All is done in perfect regularity and with great credit to the inventor.

Immense capital has been and is being invested in the manufacture of *iron*. The principal study is the best way and manner to obtain the greatest quantity of metal with the least fuel, as well as to have metal pure from all foreign substances. Professor Walter C. Johnson has made some very satisfactory experiments on coals, and reported the same to the U. S. House of Representatives. The whole is replete with intelligence, and is of value to the engineer. The great perfection of steam engines at the present day is still under study with the engineer, to simplify the machinery, and so construct the boiler or boilers as to use less fuel; also to generate steam, and the consuming of smoke and sparks.

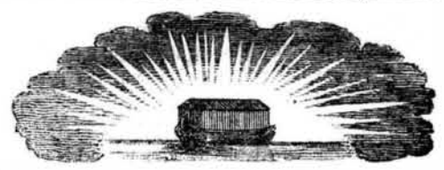
There is great strife to obtain the best propeller for vessels, boats, &c. Many have been patented, and are of great power; but none appear to work well on canals. In my opinion, they will not do for canals at all. Boats on canals will not be able to carry their own propelling power, unless the canal be very deep and wide; otherwise there is a great current of water running in one direction, while the boat is plying the other, which greatly impedes the progress of the boat. There is also a great suction of water at the stern of the canal boats, which tends also to operate against their speed, or, in other words, acts against the utility of a propeller. From the first introduction of submerged propellers, it has been fully tested, that boats or vessels propelled by submerged propellers run faster in deep water than in shoal, which fully substantiates the fact I quoted as to the utility of propellers on canals.

Another mode of conveyance by steam on land has but of late years been in operation, and now one locomotive engine can draw as much as two would at their first adoption, and with greater rapidity. Locomotives are now made heavy, with one, two, or three sets of driving wheels, so as to cause more friction, and draw a heavier load with the same rapidity. [*To be continued.*]

EFFECT OF RAILROALS.—The town of Fitchburg, Mass., has grown rapidly since the completion of the railroad from Boston, and enterprise has been greatly revived. The Crocker Company are erecting a Cotton Mill, to cost $200,000. There are three manufactories of woollen goods, at two of which a very good article of broadcloths is made; the other is devoted to the manufacture of negro cloths. There are three scythe factories in operation, three paper mills, and saw mills, grist mills, &c., in abundance. Alvah Crocker, Esq., is erecting a brick building, two hundred feet long, between thirty and forty feet wide, and four stories high, for a railroad car manufactory. to be occupied by Davenport and Bridges, of Cambridgeport. Messrs. Clark & Blackburn are building a factory of granite and brick, one hundred feet long by forty-six wide, and four stories high, for cotton goods; and Messrs. A. P. Kimball & Co. are building a scythe factory of granite, one hundred by forty feet, all of which are on the Nashua, and when finished will give employment to a large number of hands. There is a spacious hotel now building and nearly finished, in the immediate vicinity of the railroad depot.

THE GREAT FAIR.—We would invite the particular attention of our readers to the notice in the first column of our fourth page of the splendid Annual Fair of the American Institute, now open at Niblo's Garden. We have had the pleasure of visiting this grand display of the artificial wonders of America, but have not room for notices of its extensive variety. No "true American," who resides within 200 miles, should fail to visit this splendid exhibition.

A NEW FANCY IN THE PARK FOUNTAIN.—A crowd of curious people assembled in a circle round he splendid fountain in the Park, on Saturday, to witness its fitful play. The appearance of the column from the fountain was constantly varying; at times mounting up 40 or 50 feet, and branching in all directions, like a stately elm; then suddenly contracting to the form of a leafless palm, not more than fifteen feet high, and again as suddenly assuming a tall poplar form. What occasioned these fluctuations was not understood, but was evidently effected by some machinery connected with the gate or valve of the pipe, by which the fountain was supplied.



THE EXCELLENCE OF SALVATION.—Did those who profess to believe the sacred Scriptures, duly appreciate the excellence of the salvation therein promised to the faithful and obedient, they would be more joyful in hope, and more zealous in the christian cause, and anxious to secure the love of God and his approbation in all things and at all times, than they in general are. It is difficult for a speaker or writer to induce, in the minds of men, a deep and lively apprehension of this superlative excellence;—indeed, it is admitted by many to be impossible: but we shall endeavor to present some illustration of this subject, by means of figures and suppositions. Let the reader recollect some instance of enjoyment, under the influence of scenery, music, and the company of beloved friends—and decide in his mind how much he would give, or how far he would walk to obtain a repetition of the same enjoyment—admitting it to be harmless and innocent. Suppose there were to be an improvement in all the most pleasant circumstances: for instance a pleasant season, with excellent music, singing, and, if you please, dancing; and the company and friendship of all whom you most love. You will admit a willingness to pay the price of several hard days' work, rather than forego the pleasure of making one of the party. The anticipation would occupy your thoughts for several days beforehand, and you would dread any occurrence that might disappoint you. But suppose, further, that the party and festivities were appointed by the most noble and honorable personages on earth, and that you were specially invited as an extraordinary token of regard; and that you were insured to enjoy perfect health and beauty; and the love and respect of the most honorable and lovely persons alive, in addition to the company of your dearest friends; and that in the most splendid palaces, with gayest scenery and finest weather: and that this entertainment was to continue not merely a few hours but a whole week,—a month,—a year—forever! with a full supply of all things excellent; a concentration of all things beautiful; the most exquisite and thrilling music, with joyful exhiliaration, perfect confidence, liberty, and ever-varying recreation. Yet all this bears no comparison with the happiness of those whose souls, partaking of the DIVINE NATURE, are expanded and filled with a glorious apprehension of God, and of eternity, and made capable of more joy in one hour, than could be experienced by a mere mortal in a thousand years of the highest felicity this world could furnish. Such is the Christian Salvation.

Scripture Extracts.

[We have seen a man walk out of church, because the minister devoted some time to reading selections of Scripture, which the man said he could read for himself, at home: and it may be said that our readers might as well read the Scriptures from the Bible as from this paper. Nevertheless, we may think it expedient to present, occasionally, selections from the inspired writings, without comment, but which, by a little classification, may the more readily impress the mind of the reader with their importance.]

In the beginning was the Word; and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by him, and without him was not any thing made that was made.—(John i. 1–3.) For in him dwelleth all the fullness of the Godhead bodily.—(Col. ii. 9.) I and my Father are one.—(John x. 30.) Before Abraham was I am.—(John viii. 42.) He that hath seen me, hath seen the Father.—John xiv. 9.) He that seeth me, seeth him that sent me.—(John xii. 45.) I proceeded forth, and came from God.—(John viii. 42.) The Father judgeth no man; but hath committed all judgment unto the Son; that all men should honor the Son even as they honor the Father.—(John v. 22, 23.) All power is given unto me, in heaven and in earth.—(Matt. xxviii. 18.) The Son of Man is Lord, even of the sabbath day.—(Matt. xii. 8.) To the only wise God our Saviour, be glory and dominion and power, both now and forever. Amen. (Jude i. 25.)

Foreign News.

The steamship Cambria arrived at Boston on Thursday last, 13 days from Liverpool, bringing 108 passengers, and the news up to the 19th ult.

The Queen has returned from her German tour, having called on her way home, at the Chateau d'Eu, and passed a night under the roof of the King of France.

A terrific fire scene occurred at London on the 16th of September. A large warehouse in William street, filled with oil and other inflamable matter, took fire, and during the conflagration, a burning stream of inflamable matter ran down upon the wharf, on which were several hundred people. A general rush was made, and many precipitated themselves into the river: but the flaming liquid still pursued, and the surface of the water was soon covered with flame, setting on fire several vessels, to which many of the people had escaped for safety. They were again compelled to leap into the water, but were again surrounded by the floating fire, when several small boats quickly put off, and rescued them from the strange combination of elements.

Intelligence, via Odessa, has been received of a battle between the Circassian forces and the Russian army. After five days' hard fighting, the Circassians were compelled to retreat, but not without carrying off their artillery and baggage. The Russian loss is estimated at 8,000, including forty-seven officers.

A terrific cavern has been discovered about eight leagues from Guelma, in Algeria, on the side of the Imlaia Mountains. It is 1,200 feet deep and nearly a mile in length. The entrance is circular, and about 20 feet in diameter.

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Ammerican Institute.

We are happy to see, once more, the grand assemblage of the works of American genius and ardent industry, in all the various branches, displayed before the public. No occasion is more gratifying to an American citizen. There he beholds the rapidly increasing skill of our fellow citizens in producing all that is desirable in the useful as well as in the fine arts. Our dependence on foreign nations for any ornamental or valuable production in art or mechanical industry, will be where it already is for the great products of our farms. We rejoice in this, and we hope to be able, not only to feed the old world when it unfortunately may need it, but to provide them, from our unlimited resources, all those things which they may be unable to make at so cheap a rate or in so perfect a manner.

Europe ought to rejoice that this continent has the ability to do all this.

We enjoy this glorious exhibition as one of those triumphs for victory in the most noble—most honorable pursuits of man.

We call the attention of the public to the order of proceedings of the Fair, as published by the managers :

Wednesday, Oct. 8.—The range of machinery in the north wing will, as far as practicable, be in full operation through the day and evening, and continue till the Fair closes. Inventors, &c., are desired to have their machines on the spot on the first receiving day.

Thursday, Oct. 9.—The National Convention of Farmers, Gardeners, Silk Culturists, and their friends, will convene at the Repository of the Institute, in the Park, at half past 10 o'clock, A. M. An Address will be delivered by the Hon. George Lunt, of Mass., at 7 1-2 o'clock P. M.

As many of the circulars addressed and directed by the Institute, for some cause, do not reach their destination, Agricultural Associations, Clubs, &c., are desired to accept this as an invitation to the convention, and proceed at once to choose delegates. With a variety of other important business, the Home Department of Agriculture, so strongly recommended by the immortal Washington, at the last session of his administration, will again be brought to the consideration of the convention.

Friday, Oct. 10.—The National Convention of Farmers, &c., will be continued.

Saturday, Oct. 11.—National Convention closes. Address at 7 1-2 o'clock P. M. An inimitable display of the Pyrotechnic art, by Mr. Edge, a member of the Institute.

SECOND WEEK.

Ploughing and Spading Matches. Show of Cattle, Horses, &c. Triumphant Procession, with vehicles loaded with the choice productions of the Farm, Garden, &c., drawn by well-trained oxen. Anniversary Address. Music. Fire-works, &c.

Monday, Oct. 13.—List of cattle and other live stock must be left at Madison Cottage, corner 23d street and 5th Avenue, or they may previously be directed to T. B. Wakeman, Esq., Corresponding Secretary of the Institute, with Pedigrees signed by the owners.

Tuesday, October 14.—Ploughing and Spading Matches in the vicinity of the place of the Cattle Show

Wednesday, October 15.—The show of horses, cattle, sheep, swine, poultry, &c., will open at Madison cottage, (see above) at 10 o'clock, A. M. The horses, cattle, &c., must be on the ground by nine o'clock, A. M.

Thursday, Oct. 16.—Last day of the Exhibition of horses, cattle, &c. Address on Agriculture, in Niblo's great Saloon, at 7 1-2 o'clock, P. M.

Friday, Oct. 17.—Private sale of horses, cattle and other live animals exhibited. Purchasers will find, particularly in well-trained and well-matched cattle, their interest in being present. Anniversary Address by the Hon. T. D. Eliot, of Massachusetts, at 7 1-2 o'clock.

Other interesting operations from day to day, will be noticed in the papers.

EXTRA PREMIUMS.

We are enabled, by the munificence of the Hon. Myndert Van Schaick, of this city, to offer, this year, from his donation of $1000, the following special premiums, in addition to the premiums on other silk goods, which will be given by the American Institute :

For the best piece of silk stuff, 27 inches in width, and 60 yards in length, manufactured in the United S. from native silk, $50.

For the best and greatest quantity of American silk, not less than 50 lbs., $20.

For the best sewing, of any color, made entirely from American silk, not less than 10 lbs., $10.

For the best pea-nut cocoons, nat less than one bushel, $10.

And to each of the successful competitors, the "Van Schaick Medal."

We are also enable, by the liberality of Shepherd Knapp, Esq., to offer the following premium :

For the best constructed farm-waggon, and the best method of harnessing horse for the draught of the same, which shall be adjudged superior to anything of the kind, now in use, by the committee to whom it shall be referred, $50.

Reference will be had to the economy of construction in making the award.

EXTRA PREMIUMS BY THE AMERICAN INSTITUTE IN THE MECHANIC ARTS.

For the best eight panel door, made of pine by a journeyman or an apprentice, a diploma and $10.

For the best thirty gallon cask, iron bound, a diploma and $10.

For the best thirty gallon cask, wood bound, a diploma and $10.

For the best pair of men's calf-skin boots, a silver medal and $5.

For the best pair ladies' winter boots, a silver medal and $5.

For the best fur hat, a silver medal and $5.

Competitors for the above premiums must produce satisfactory testimony that the articles they exhibit, are the work of their own hands.

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COATS Renovated at 50 cents; Vests, 12 1-2;—Ladies' Dresses Dyed, from 50 cents to $1 00;
Parasols and Sun Shades Cleaned at 25 cents;
Carpets Cleaned whole at 6 cents per yard;
Hearth Rugs Cleaned or Dyed;
Velvet of all descriptions Cleaned or Dyed;
Crapes or Gauzes Dyed; Blankets Cleaned;
Gentlemen's Clothes Repaired.
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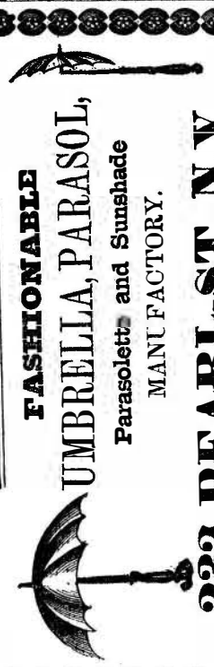

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10,000 COTTON UMBRELLAS, cane frames, from 30 to 75 Cts.
5,000 GINGHAM and CAMBRIC UMBRELLAS, whalebone frames, from.....55 Cts. to $2.
1,000 Gentlemen's SILK UMBRELLAS, made on whalebone frames, suitable for the Southern, Western and Eastern markets.
1,000 Gentlemen's PARISIAN SILK UMBRELLAS, a very neat article, made on steel frames, with tube and hardwood handles, inlaid and plain. This article is well worthy the attention of Merchants.

An assortment of beautiful TRAVELLING UMBRELLAS, which can be folded up and put in the pocket—made on silk and gingham.
3,000 Ladies SUN SHADES, from.....25 Cts. to $1 50.
500 Ladies SUN UMBRELLAS, from.....$1 50 to $3.
1,000 Misses PARASOLS, all colors, from..... 31 to $1.
2,000 Ladies PARASOLS, figured and plain, from..... 62½ to $2.
2,000 Ladies PARASOLS and PARASOLETTES, fringed, scolloped, and plain edge, of the latest French fashion, with embroidered cheneé figured and plain SILKS of every variety of color, with Palmwood, Rosewood, Ebony, Ivory, Pearl, and Steel handles.

An assortment of Gentlemen's Walking Sticks, imported and domestic. Busks, of Whalebone, Brass and Wood.

Also, an extensive variety of manufactured and unmanufactured Whalebone, for Bonnets, Caps, Dresses and Stays.

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Signed by
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" LITCH & WHIPPLE, do. Boston.

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[Or, the natural theory and moral bearings of Phrenology. A comparison of the religion of the Bible with natural religion.]	
Fowler, on Memory,	25
[Or, Phrenology applied to the cultivation of the memory—the intellectual education of the children—and the strengthening and expanding of the intellectual powers	

J. M. DOLLAN,

SCOURER AND CLOTHES RENOVATOR,

HAS the pleasure to announce to his old customers and their friends, that he has a New Composition for removing Stains, without injury to the cloth, (having a thorough knowledge of materials used in the manufacture of cloth,) and restore its original colour, without injury, on the most reasonable terms.

Gentlemen, this is worthy your attention. Please call and examine for yourselves at

561 *Pearl Street, one door from Broadway.*

☞ *J. M. D.* will call in any part of the city for their accommodation. Altering and repairing with neatness roughout. sep 18

J. B. CARRY & CO.,

ARTISTS. &c.,

MANUFACTURERS OF ORNAMENTAL

SHOW CARDS,

ADAPTED for utility as well as ornament, for stores in all kinds of business. Specimens may be seen in the leading stores of the principal cities of the Union.

Agents for Boston: Messrs. Sowle & Shaw. Mr. J. L. Lazarus is now visiting the Eastern States—All orders received by him will meet with prompt attention.

34 BEEKMAN-STREET (late 323 Broadway.)

☞ Observe! our names are printed at the foot of each card, and we caution the public that imitators are in the field au23

A. G. BAGLEYS' CELEBRATED IMPROVED

EVER-POINTED GOLD PEN.

THIS Pen received the highest premium at the last Fair of the American Institute, and has been pronounced by the first teachers of Penmanship in the country to be infinitely superior to any Gold Pen ever before introduced to the American public. The lasting properties of this Pen are undoubted, owing to the total absence of corrosibility from any of the inks in use, and the peculiar shape of the nibs, [which was first introduced by Bagley] makes it more pleasant to use, renders it less liable to damage, more easy to repair, and prevents the necessity of the great care that other articles of the kind require.

Manufactury, 189 BROADWAY, N. York: au23

FOR the accommodation of the Public, at the Old Stand, 276 Bowery.—BENEDICT & SON, would respectfully inform their customers and the public in general, that they have been refitting their establishment and renewing their stock of Goods, consisting of the following articles, viz. Gold and Silver R & G Beesley and C I Tobias Levers, Chronometers, Duplex, Lepine and other Watches, too numerous to mention. Jewelry, consisting of fine diamond pins and rings, gold chains and miniature cases, gold fob and vest chains, Ladies' and Gents' fine bosom brooches, and a handsome assortment of rich gilt and marble parlour clocks.

Our Silver Ware consists of spoons, forks, knives, sugar tongs, soup, ladle, salt, mustard and egg spoons, &c., which are warranted to be as pure as coin. Silver sets made to order. A good assortment of Britannia and Plated Ware constantly on hand. You are invited to call and examine for yourselves.

MARTIN BENEDICT,
JOHN J. BENEDICT.

N.B.—M. Benedict would state to the public in general that he is no stranger in the city, having been established 22 years in business in the Bowery. The repairing of watches, jewelry, and French parlor clocks, attended to with strict punctuality. au23

AMERICAN INSTITUTE FAIR.

THE EIGHTEENTH GREAT FAIR OF THE AMERICAN INSTITUTE at NIBLO'S GARDEN, New-York.—The Fair will open on Monday, the 6th of October next, at 12 o'clock, M. The days for delivering articles at the Garden, THURSDAY, FRIDAY and SATURDAY previous. The National Convention of Farmers, Gardeners, and Silk Culturists, will be held on Thursday, 9th October. Delegates, without further notice, are invited from all parts of the Union. The Cattle Show will be held on the ground between 23d and 24th streets, 5th Avenue. Ploughing and Spading Matches, &c., as usual. Head Quarters for Managers, Committees, &c., secured in the Madison Cottage. Fine horses for draft, healthy fat cattle, and sheep for market, well matched and trained working cattle, and new and useful inventions, will command higher premiums than at any preceding Fair. An opening, anniversary, &c. Addresses will be delivered by the most eminent orators of our country. The people of this great Republic are invoked zealously to co-operate in carrying out this exhibition: au23

JOHN BROWN,

CARPENTER & PRINTERS' JOINER,

Nos. 29 & 61 Ann-street, New York,

MANUFACTURER of Cases, Stands, Furniture, &c. Stereotype Blocks, of various sizes.

Box-wood and Mahogany, for Engravers, always on hand.

Stereotype Plates blocked at short notice.

Press, Paper, and Letter Boards, of every description.

Book-binders' Cutting and Pattern Boards.

Stereotype Boxes, made to order.

Printers', Stereotypers, Type Founders', and Book-Binders' Jobbing Work done at the shortest notice.

N. B. Orders from various sections of the country solicited, and promptly executed. sep 4

GPECK & CO. would gratefully acknowledge the favor their new project has secured. Answers will be soon made to all inquirers. Being new, there are obstacles to that speedy attention to all parts of the plan, which occasion more delay than was expected. It is requested that all persons wishing to inquire, will do so by letter. All reasonable postage is readily paid. Persons who may have sent money, and have not received answers, or shall not this month, are requested to inform us. The large advertisement will appear monthly hereafter, and the explanatory paper in the course of the month, it is hoped. G. PECK & CO.

New York, Oct. 6, 1845.

BEEBE & COSTAR,

HATTERS,

NO. 156 BROADWAY.

RESPECTFULLY invite those who are in want of a SUMMER HAT, to call at their establishment and get themselves fitted with one of their specially admired CRANIUM PROTECTORS, so light, airy, elastic and beautiful, that OLD SOL, through its agreeable and cooling intervention, is fairly set at defiance.

A splendid new article of

LEGHORN CAPS FOR CHILDREN,

with a variety of STRAWS, PANAMAS, &c. A beautiful article of Walking Stick, called the MALACCA CANE; with Cane Umbrellas, Cane Fishing-rods, Carpet Bags &c. &c. au23

GENERAL AGENTS.

Haliburton & Co., 12 State street, Boston.
Colon & Adriance, 21 Arcade, Philadelphia.

LOCAL AGENTS.

C. A. Hinckley, 122 Baltimore street, Baltimore.
J. W. Davis, Lowell, Mass.
W. H. Pratt, Springfield, Mass.
H. P. Barnes, Pittsfield, Mass.
T. Dickinson, Newark, N Y.
E. Hopkins, Lyons, N Y.
William M. Beauchamp, Skaneateles, N. Y.
Peter Cook, Hartford, Ct.
W. & E. Downes, New Haven, Ct.
William Woodward, Middletown, Ct.
S. Jones, Colchester, Ct.
J. Hunter, Thompsonville, Ct.
H. S. Snow, Meriden, Ct.
Safford & Parks, Norwich, Ct.
S. W. Baldwin, Bridgeport, Ct.
Col. A. P. Chesley, Huron, O.
Charles O'Neal, Darien, Geo.
Major J. Nathans, Quincy, Flo.
Daniel Cobb, Providence, R I.
H. J. Pitman, Bristol, R. I.
R. Kidney, jr. Newark, N J. 123 Broad-street.
W. Solomon, New Brunswick, N J.
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Travelling Agent.

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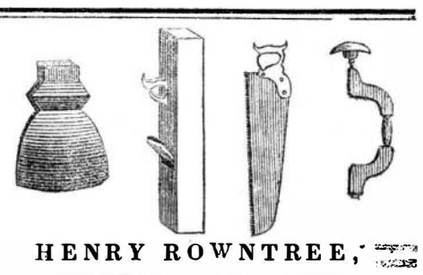

HENRY ROWNTREE,

IMPORTER OF, AND DEALER IN

Mechanics' Tools, Hardware and Cutlery,

No. 60 Chatham-st., (cor. of Chambers.)

AT the Tool Store, No. 60 Chatham street, corner of Chambers, at the sign of the Saw, Axe, and Plane, will be found good tools suitable, for the following Branches of trade.

Blacksmiths'	Engravers,	Hatters,	Shoemakers,
Brushmakers,	Farriers,	Last-makers,	Silversmiths,
Carpenters,	Eurriers,	Masons,	Tanners,
Cabinet Makers,	Gardeners,	Machinists,	Tinners,
Coach Makers	Glaziers,	Millwrights,	Upholsters,
Carvers,	Glovers	Plumbers,	Watchmakers,
Coopers,	Gunsmiths,	Pattern Makers,	and
Chair Makers,		Saddlers,	Wheelwrights.

Which being made expressly to my orders, will be found good, and the Mechauic may place confidence in them.

H. R. assures his friends that he has no connection with any other store, and that at his store, State Prison Tools are NOT SOLD OR KEPT. sep 4

PATENT GALVANIC RINGS,

AND CRISTIE'S MAGNETIC FLUID.

THIS remarkable discovery has received the universal approbation of the medical profession of Great Britain, who have pronounced it among the most important of modern scientific inventions. The PATENT GALVANIC RINGS have been found to answer all the purposes for which the ordinary Galvanic Battery, or Electric and Magnetic machines are used, but without any of the injurious SHOCKS which always accompany the application by these instruments, and in many other respects are more *safe* and *certain* in accomplishing the desired object.

The Galvanic Rings have now been several months before the English public, and the universal reputation they have acquired is sufficient evidence of their extraordinary power in the prevention and cure of the diseases for which they are recommended. They have been used with perfect success in all cases of Rheumatism, acute or chronic, Gout, Tic Dolereaux, Sick Headache, Indigestion, Paralysis, Stiff Joints, General Debility, Deficiency of Nervous Energy, Neuralgia, and all Nervous Disorders. The galvanic power which they possess is gradual and constant, and the beneficial effects they produce upon the system must be witnessed to be believed. The Galvanic Rings are in every way perfectly harmless, and are sold at prices to be within the reach of all desirous of testing their efficacy. *Dr. Christie* warns the American public from the beginning, to beware of *spurious imitations*. The only Agency in New York is at 134 FULTON STREET, a few doors from Broadway, and from the secret process by which the metals are prepared to be rendered sensitive and efficient, all imitations must be entirely devoid of any galvanic effect. CHRISTIE'S MAGNETIC FLUID, used in connection with the Rings, to accelerate and render effective the galvanic action, is only to be procured at the same place. s11

ADAMS & CO.'S EXPRESS,

TO PITTSBURG, PA.,

THROUGH IN FOUR DAYS!

THE subscribers respetfully inform the public that they have completed an exclusive contract with the proprietors of the well-known "Pioneer and Express Line," at Philadelphia, for the daily transportation of Iron Chests to Pittsburg, under their own locks and keys.

The arrangement of ADAMS & CO. are such as to insure greater despatch in the forwarding and delivery of valuable packages and parcels of every description than has been before offered to the public. The Pioneer and Express line being in perfect order and running through to Pittsburg in three and one-half days from Philadelphia.

☞ Merchants will find it to their interest to make Collections through the medium of Adams & Co.'s Express. It is the cheapest and most expeditious method, and the strictest attention will be given to collecting or paying Notes, Drafts, Bills, &c. &c.

Goods received before half past one o'clock are forwarded on the same day. Small packages received until half-past four o'clock P. M.

Adams & Co. run the only Package Express Cars to Philadelphia.

Agent in Philadelphia, E. Sandford.
" Pittsburg, R. W. Berford. sep 4

CUMMINGTON QUINEBAUG

SCYTHE STONES,

From the Celebrated Robbins Ledge.

MANUFACTURED BY J. S. STAFFORD & CO.,

CUMMINGTON, MASS.

THE unprecedented sale of the *Cummington Quinebaug SCYTHE STONES*, during two years, has fully established their claim to *SUPERIORITY OVER ALL OTHER STONES* now in use, and renders unnecessary any recommendation from the proprietors.

☞ A continuance of public patronage is respectfully solicited. All orders addressed to *J. S. STAFFORD*, or *JACOB MORSE*, (sole proprietors) or *STEPHEN MORSE, Agent, Cummington, Mass.*, will meet with prompt attention.

For sale at all the principal hard-ware stores. s11

ADAMS & CO.'S

GREAT EASTERN, SOUTHERN, AND WESTERN DAILY PACKAGE

EXPRESS

IN connection with Messrs. & Smith, of Liverpool, we have established a EUREPEAN EXPRESS, similar in its design and operation to our American Express, and alike beneficial to the merchants and importers of both countries. Custom House buisness promptly attended to.

Express for the South and West leaves Office daily, at quarter to 3 and half past 4 P. M.

Express for the East at quarter to 5 P. M.

Merchants and others will bear in mind, we run the ONLY Express Cars between New York and Baltimore.

sep 4 ADAMS & CO. Wall street.

JOHN WESTALL AND CO. PRINTERS, 183 WILLIAM-STREET, NEW-YORK.

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